

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An aluminum nitride powder comprising:  
~~characterized in that it has local maximum values in size in regions of from 3 to 15  $\mu\text{m}$ , from 0.5 to 1.5  $\mu\text{m}$  and 0.3  $\mu\text{m}$  or less, the proportions of particles in the respective regions are~~  
from 40 to 70% of coarse particles having a size of 3 to 15  $\mu\text{m}$ ,  
from 25 to 40% of medium particles having a size of 0.5 to 1.5  $\mu\text{m}$ , and  
from 0.5 to 20% of fine particles having a size of 0.3  $\mu\text{m}$  or less,  
the percentages being on [[the]] a volume basis, and [[it]]  
wherein the aluminum nitride powder has an oxygen amount of from 0.5 to 1.5 mass%.

Claim 2 (Currently Amended): An aluminum nitride non-fired molded body  
~~characterized by~~ comprising a molded body of a powder mixture ~~containing~~ comprising the aluminum nitride powder as defined in Claim 1 and a sintering aid.

Claim 3 (Currently Amended): An aluminum nitride sintered body which is a sintered body of the aluminum nitride non-fired molded body as defined in Claim 2,  
~~characterized by having~~ wherein the aluminum nitride sintered body has a thermal conductivity of at least 190 W/m  $\cdot$  K and a shrinkage factor represented by the percentage of  $\{(\text{dimensions of the molded body before sintering}) - (\text{dimensions of the sintered body after sintering})\} / (\text{dimensions of the molded body before sintering})$  of at most 15%.

Claim 4 (Currently Amended): The aluminum nitride sintered body according to Claim 3, ~~which contains~~ comprising the sintering aid in an amount of from 1 to 5 parts by mass per 100 parts by mass of the aluminum nitride powder.

Claim 5 (Original): The aluminum nitride sintered body according to Claim 3 or 4, wherein the sintering aid is yttrium oxide or calcium oxide.

Claim 6 (Currently Amended): A process for producing the aluminum nitride powder ~~as defined in~~ according to Claim 1, ~~which comprises~~ comprising:

dispersively mixing a raw material aluminum powder having an average particle size of at most  $40\text{ }\mu\text{m}$  and an oxygen amount of at most 0.5 mass% with a nitrogen gas in a proportion of at most 100 g per  $1\text{ Nm}^3$  of the nitrogen gas,

atomizing the gas into a reaction tube for nitriding, and

collecting the product in a collection system, ~~characterized in that~~

wherein the oxygen concentration at a portion at which the temperature will be at least  $100^\circ\text{C}$  in the reaction tube and the collection system is controlled to be at most 100 ppm, and the product is taken out at a temperature of at most  $100^\circ\text{C}$ .

Claim 7 (Original): The process according to Claim 6, wherein the formed aluminum nitride powder has a BET specific surface area of at least  $10\text{ m}^2/\text{g}$  and a value of the oxygen amount (mass%)/the specific surface area ( $\text{m}^2/\text{g}$ ) of from 0.1 to 0.2.

Claim 8 (New): The aluminum nitride powder according to claim 1, wherein the coarse particles have a size of 5 to  $10\text{ }\mu\text{m}$  and are present in an amount of from 50 to 60 volume %.

Claim 9 (New): The aluminum nitride powder according to claim 1, wherein the medium particles have a size of 0.8 to  $1.3\text{ }\mu\text{m}$  and are present in an amount of from 25 to 35 volume %.

Claim 10 (New): The aluminum nitride powder according to claim 1, wherein the fine particles have a size of 0.05 to  $0.25\text{ }\mu\text{m}$  and are present in an amount of from 5 to 15 volume %.

Claim 11 (New): The aluminum nitride powder according to claim 1, wherein the coarse particles have a size of 5 to  $10\text{ }\mu\text{m}$  and are present in an amount of from 50 to 60 volume %, the medium particles have a size of 0.8 to  $1.3\text{ }\mu\text{m}$  and are present in an amount of from 25 to 35 volume %, and the fine particles have a size of 0.05 to  $0.25\text{ }\mu\text{m}$  and are present in an amount of from 5 to 15 volume %.

Claim 12 (New): The aluminum nitride powder according to claim 1, wherein the aluminum nitride powder has an oxygen amount of from 0.8 to 1.3 mass%.